



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

June 15, 1994

Mr. Fred Evans  
Department of the Navy  
Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway, Mailstop 82  
Lester, PA 19113-2090

Re: Draft Proposed Plan for Site 9  
NAS Brunswick  
May 1994

Dear Fred:

The United States Environmental Protection Agency (EPA) has reviewed the document entitled Draft Proposed Plan for Site 9, NAS Brunswick dated May 1994. The EPA's comments are found in Attachment I of this letter. Should you have any questions regarding the EPA's comments, please feel free to call me at (617) 223-5521.

Sincerely,

A handwritten signature in black ink that reads "Robert Lim".

Robert Lim, Remedial Project Manager  
Federal Facilities Superfund Section

Attachment

cc. Meghan Cassidy/EPA  
Margery Adams/EPA-ORC  
Steve Mierzykowski/USFWS  
Nancy Beardsley/MEDEP  
Jim Caruthers/NASB  
Elizabeth Walter/ABB-ES  
Susan Weddle/BASCE  
Carolyn LePage/Gerber, Inc.  
Sam Butcher/Harpswell Community Rep.  
Rene Bernier/Topsham Community Rep.



## ATTACHMENT I

The following are the EPA's comments pertaining to the document entitled Draft Proposed Plan for Site 9, NAS Brunswick dated January 1994.

1. Page 1-1, ¶ 1, third sentence: The word "remedial" should replace "clean-up" in this sentence in order to reflect the minimal action being proposed.
2. Page 1-3, ¶ 1: Change the first sentence to read as follows "Remediation by natural attenuation was part of the remedial alternatives that were..."
3. Page 2-1, ¶ 1: It appears that the phrase "information on groundwater quality while" does not belong in the second sentence of this paragraph.
4. Page 2-1, ¶ 2, third sentence: The word "remedial" should replace "clean-up" in this sentence in order to reflect the minimal action being proposed.
5. Page 2-2, ¶ 2, first sentence: The word "remedial" should replace "clean-up" in this sentence in order to reflect the minimal action being proposed.
6. Page 2-3, ¶ 1: It appears that "July 8, 1994" should be "August 6, 1994."
7. Page 2-3, ¶ 2, first sentence: The word "clean-up" should be deleted from this sentence.
8. Page 2-5: To complete EPA address, add "(HAN-CAN1)" after JFK Federal Building.
9. Page 3-1, ¶ 2: The first and second sentences in this paragraph are awkward. A better structure would be "In 1975, with growing awareness of the long-term effects of hazardous substances on the environment, the Department of Defense developed the Installation Restoration Program (IRP) to address conditions caused by past events and practices. This program was..."
10. Page 3-3, ¶ 2: The second sentence in this paragraph appears to be unnecessary and should be removed.
11. Page 3-6, ¶ 1 and 2: Item 1 in the first paragraph mentions a disposal area. It is unclear whether this is the ash disposal area mentioned in the second paragraph. The first paragraph mentions three areas of potential contamination, but the rest of the section appears to discuss only the first area. All three areas should be introduced and discussed.

12. Page 3-8, ¶ 1: The first sentence is unnecessary and should be deleted.
13. Page 3-9, ¶ 3: From the public's perspective, instead of above mean sea level, it seems that below ground surface (BGS) would provide a better description of the depth to groundwater.
14. Page 3-11, ¶ 2: This paragraph states that two soil gas points indicated low concentrations of VOCs. The paragraph goes on to state that the two points do not indicate a source of VOC contamination. This last statement needs to be substantiated to explain why the two points do not indicate a source of VOC contamination.
15. Page 3-11, ¶ 2: DCE needs to be spelled out.
16. Page 3-12, ¶ 2: The second sentence in this paragraph appears to be out of place. It is also unclear from the rest of the section why the ash disposal area may be the source of the contamination.
17. Page 3-12, ¶ 2: The figure referenced in the fifth sentence should be changed to Figure 3-5.
18. Page 3-15, ¶ 1: The fourth sentence notes that all compounds except toluene were detected upstream and are the result of runoff from the parking lots. The paragraph does not discuss where the toluene came from.
19. Page 3-16, Table 3-1: The following changes need to be made to Table 3-1: (1)  $\mu\text{g/L}$  needs to be added to Upstream Concentration; (2) the Picnic Area Pond results should be moved to before the Fresh Water AWQC; and (3) the terms chronic and acute should be defined.
20. Section 3.2.5: This section discusses VOC and inorganic contamination in the ground water but does not discuss SVOCs. Even if SVOCs were not found, this section should indicate the SVOC analytical results for ground water.
21. Page 3-18, ¶ 1: The third sentence mentions a septic system. This is the first mention of the septic system, and a location and description, similar to the one found on page 1-4 in the Final Site 9 Technical Memorandum, should be added to Section 3.1.
22. Page 3-22, ¶ 1: A TerraProbe survey needs to be defined.
23. Page 3-22, ¶ 2: CRQL needs to be defined.

24. Page 3-24, ¶ 1: The first full sentence and the second sentence of this paragraph appear to contradict one another, please clarify in the text.
25. Page 3-24, ¶ 2: The text makes reference to NAS Brunswick and site background values. What is the difference between the two? This needs to be clarified.
26. Page 3-24, ¶ 3: Add a statement based on the hydrogeologic information to support the concept that groundwater discharges to the tributary and does not pass under the tributary.
27. Page 3-28, ¶ 1: The last sentence of this paragraph which make conclusions regarding the leachate seep/sediment is unclear. The relevance of the comparison between concentrations in the leachate sample and groundwater in monitoring wells should be clarified in the text.
28. Page 3-28, ¶ 2: The first sentence should be rewritten as follows.

"A TerraProbe investigation (consisting of 33 locations) was conducted, and three monitoring wells were installed during the 1993 field investigation north of Neptune Drive."
29. Page 3-29, first full ¶: The third sentence of this paragraph indicates that the groundwater contours differ from those drawn using data from the RI. Additional text should be added explaining what this means, what may have caused this, etc.
30. Page 3-29, first full ¶: The last sentence of this paragraph indicates the groundwater flow direction as determined in the FS. Does the additional information collected after the FS support this finding? If so, state this in the text. If not, explain why this information is not thought to be representative.
31. Page 3-29, last ¶: The second sentence refers to two downgradient wells. The text should specifically state what these two wells are downgradient of since Site 9 has so many potential source areas.
32. Page 3-30, ¶ 1: Again, the first sentence should indicate what the "downgradient monitoring wells" represent.
33. Page 3-30, ¶ 2, first sentence: Revise the first sentence to state that vinyl chloride and 1,2-DCE were found at concentrations in excess of their MCLs.

34. Page 3-30, ¶ 2, second sentence: The second sentence indicates that the septic system was at one time the source of the ground water contamination. This is not supported by the data that are presented. The only conclusion that can be drawn is that the septic system is not currently a source of contamination.
35. Page 3-31, ¶ 1: Since the last sentence of this paragraph indicates that the PAHs may be attributable to either non-point runoff or from the ash, the last sentence should end with the following text.

"...may not be attributed to Site 9."

36. Page 3-31, ¶ 2: This paragraph draws a conclusion on what the appropriate remedial action would be for the site; however, it appears out of place, and should be deleted or moved considering the risk assessment and the FS have not been discussed.
37. Section 4.1: The EPA suggests that a table be developed that presents the carcinogenic risks and non-carcinogenic risks by medium.
38. Page 4-2, ¶ 1: The third sentence states that the risk estimates for soil assume a residential exposure scenario; however it does not present the exposure scenarios for the other media of concern. The exposure scenarios and pathways used to develop the risk estimates for each medium should be presented.
39. Page 4-2, ¶ 3: The first sentence should state that the human risks are carcinogenic. In addition, the risks are stated to have been developed using only a direct contact pathway. This does not agree with the first paragraph on this page and needs clarification.
40. Page 4-3, ¶ 1: Although both are within the EPA acceptable risk range, the risk numbers calculated during the FS are higher than the risk numbers calculated during the risk assessment. This discrepancy needs to be addressed.
41. Page 4-3, ¶ 1: The last sentence of this paragraph should be rewritten as follows.
- "These risk estimates are within USEPA's target risk range of  $10^{-4}$  to  $10^{-6}$ .
42. Page 4-3, last ¶: The last sentence on this page presents the total PAH concentration. Since the rest of this paragraph is discussing risks associated with carcinogenic PAHs, this is the data that should be presented.

43. Page 4-4, ¶ 2: It is unclear what the comparison of contaminant concentration to ARARs has to do with the assessment of risks to human health. This paragraph should be moved or deleted and the calculated risks for ground water should be presented.
44. Page 4-6, ¶ 1: Add a statement to this paragraph indicating that the highest PAH hits in sediment are at locations expected to be unimpacted by Site 9.
45. Page 4-6, ¶ 1: The paragraph appears to be summary of the PAH contamination in sediments and the possible sources of this contamination, however risks to the environment from PAHs have not been presented.

In addition, to highlight the point that the "PAH compounds in the southern stream sediments are most likely attributable to base operations," an additional statement or revision of the first sentence is needed to clarify the reason for presence of PAH compounds. It seems that the relationship between the base operations and the PAHs in the stream sediment has not been completely clarified by stating that the southern stream receives runoff from a majority of the base.

46. Page 4-6, ¶ 2: Since concentrations of VOCs were below the acute AWQCs, clarify that contamination in surface water does not pose a risk.
47. Page 4-6, ¶ 2, last sentence: Sentence seems irrelevant to a summary in the risk assessment and this point was previously made during the investigation discussion.
48. Page 5-1, Section 5.0: The heading for this section should be **"PROPOSED REMEDIAL OBJECTIVES AND LEVELS"**.
49. Page 5-1, 1st sentence: The phrase "clean-up of" should be deleted from this sentence.
50. Page 5-1: The following sentence should be added to the end of this paragraph.

"Long-term monitoring, which will be implemented as a result of this interim action, is necessary to document the attenuation of contamination over time."
51. Page 5-2, ¶ 1: The following sentence should be inserted in the text after the existing second sentence.

"Under the natural attenuation alternative, it is expected that these levels will be attained through natural processes within a reasonable time frame."

52. Page 5-2, ¶ 1: The portion of the existing paragraph beginning with "Analytical data identified..." should be made into a separate paragraph since it refers to soils and not groundwater.
53. Page 5-2, ¶ 2: The second sentence of this paragraph should be rewritten as follows.
- "The presence of DDT is from the historical routine application of this pesticide, not past disposal activities at Site 9."
54. Page 5-2, ¶ 2: The Navy should consider adding text to this paragraph indicating the steps being taken to document and mitigate PAH contribution to the streams. This would help the community and Fish and Wildlife to be more willing to accept the contamination and the actions proposed in this Plan.
55. Page 5-3, Table 5-1: Since the interim action is for the groundwater operable unit, target clean-up levels for groundwater should only be presented.
56. Page 6-2, ¶ 2: Add the following to the end of the first sentence of this paragraph.
- "...to measure expected decreases of contaminant concentrations over time."
57. Page 6-3, ¶ 1: Please insert an additional phrase to provide a perspective in the part of the "site" it will take a water particle to move.
58. Page 6-4, Institutional Controls: Replace the word "contact" in the first sentence with "consumption".
59. Page 6-4, ¶ 1: A brief explanation of what the institutional controls would be needs to be provided.
60. Page 6-4, ¶ 2: The text states that the monitoring would be performed for 30 years; however, the text on page 6-3 indicates that ground water cleanup will be achieved in 2 to 15 years. The additional 15 years of monitoring should be explained.
61. Page 6-5: It is unclear whether the shown estimated operation and maintenance cost is an annual cost or a total net present worth. In either case the capital and O&M costs do not appear to add up to \$160,000. The concern regarding the total net present worth should be reviewed for all alternatives.

62. Page 8-2, ¶ 3: The first sentence of this paragraph is not clear and needs to be rewritten.
63. Page 8-3, ¶ 2, 2nd sentence: Reference to the various alternatives in this sentence is very confusing. Revise the text.
64. G-2: Consider revising definition of Baseline to: "A statement of existing conditions and their consequences should no further action be taken."
65. G-3: For the public's benefit, consider adding the following to the definition of Ecological Hazard Index. "A measure designed to show whether adverse effects to wildlife are occurring as a result of contaminants. The ecological hazard index is..."
66. G-6: Add acronyms ppb and ppm to definitions of micrograms per liter and milligrams per kilogram.